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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Marc van Oldenborgh

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BLAKELY SOKOLOFF TAYLOR & ZAFMAN LLP
1279 OAKMEAD PARKWAY
SUNNYVALE, CA 94085-4040

EXAMINER

NGUYEN, TOAN D

ART UNIT

PAPER NUMBER

2416

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/730,837	Applicant(s) OLDENBORGH ET AL.	
	Examiner TOAN D. NGUYEN	Art Unit 2416	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 October 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 32-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 39 and 40 is/are allowed.
- 6) ☒ Claim(s) 32-38 and 41-49 is/are rejected.
- 7) ☒ Claim(s) 50 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/9/08</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. Claims 32-38, and 41-44 are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. While the claims recite a series of steps or acts to be performed, a statutory “process” under 35 U.S.C. 101 must (1) be tied to particular machine, or (2) transform underlying subject matter (such as an article or material) to a different state or thing. See page 10 of *In Re Bilski* 88 USPQ2d 1385. The instant claims are neither positively tied to a particular machine that accomplishes the claimed method steps nor transform underlying subject matter, and therefore do not qualify as a statutory process. The multiplexing digital data method including steps of sending a first stream of data elements starting with data element 1 of the packet and proceeding upward in sequential order; sending a second stream of data elements starting with data element n of the packet and proceeding downward in sequential order; and terminating the sending of the first and second streams of data elements when the entire packet has been sent are broad enough that the claim could be completely performed mentally, verbally or without a machine nor is any transformation apparent. For example, which apparatuses are performing the steps of sending a first stream of data elements starting with data element 1 of the packet and proceeding upward in sequential order; sending a second stream of data elements starting with data element n of the packet and proceeding downward in sequential order; and terminating the sending of the first and second streams of data elements when the entire packet has been sent.

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2. Claims 45-46 are rejected under 35 U.S.C. 101 because a computer-readable storage medium storing a computer program which, when executed by a computer, cause the computer to perform a method of sending a packet via electromagnetic waves (see specification on page 2, lines 17-18). Therefore, claims 45-46 are directed to non-statutory subject matter.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 47-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanekiyo et al. (US 5,799,018) in view of Ben-Michael et al. (US 6,078,565).

For claim 47, Kanekiyo et al. disclose method and system for private communication with efficient use of bus type transmission path, comprising:

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a first transmitter (figure 1, reference 122) for sending a first stream of digital data elements, starting with data element 1 of the packet and proceeding upward in sequential order (figure 1, reference 103)(col. 3, lines 56-61, and figure 3, col. 4, lines 32-35), and

a second transmitter (figure 1, reference 113) for sending a second stream of digital data elements, starting with data element n of the packet and proceeding downward in sequential order (figure 1, reference 104)(col. 3, lines 63-67, and figure 4, col. 4, lines 35-38).

However, Kanekiyo et al. do not expressly disclose a memory for storing the packet of digital data. In an analogous art, Ben-Michael et al. disclose a memory for storing the packet of digital data (Abstract, lines 5-7).

One skilled in the art would have recognized the memory for storing the packet of digital data, and would have applied Ben-Michael et al.'s FIFO in Kanekiyo et al.'s main device 101. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Ben-Michael et al.'s method and apparatus to expand an on chip FIFO into local memory in Kanekiyo et al.'s method and system for private communication with efficient use of bus type transmission path with the motivation being to provide the front and back ends of the FIFO which are involved in receiving and transmitting data (Abstract, lines 6-7).

For claim 48, Kanekiyo et al. disclose method and system for private communication with efficient use of bus type transmission path, comprising:

a first receiver (figure 1, reference 114) for receiving a first stream of digital data elements of the packet, and storing it the first stream of digital data elements in said signal reception unit 114, starting from the front of the memory and proceeding toward the back of the signal reception unit 114 (col. 3, lines 56-61), and

a second receiver (figure 1, reference 123) for receiving a second stream of digital data elements of the packet, and storing it the second stream of digital data elements in said signal reception unit 123, starting from the back of the memory and proceeding toward the front of the signal reception unit 123 (col. 3, lines 63-67).

However, Dolman et al. do not expressly disclose a memory for storing the packet of digital data. In an analogous art, Ben-Michael et al. disclose a memory for storing the packet of digital data (Abstract, lines 5-7).

One skilled in the art would have recognized the memory for storing the packet of digital data, and would have applied Ben-Michael et al.'s FIFO in Dolman et al.'s FIFO. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Ben-Michael et al.'s method and apparatus to expand an on chip FIFO into local memory in Dolman et al.'s communications in a distribution network with the motivation being to provide the front and back ends of the FIFO which are involved in receiving and transmitting data (Abstract, lines 6-7).

For claim 49, Kanekiyo et al. disclose wherein the first transmitter and the second transmitter are configured to terminate sending when a signal is received from a receiver (col. 5, lines 31-45).

Allowable Subject Matter

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6. Claim 50 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Claims 39-40 are allowed.

Regarding claim 39, the prior art fails to teach a combination of the steps of:

simultaneously sending data elements of the data packet from at least a second device and a third device in the network to the first device, including:

sending data elements from the third device starting from data element n of the data packet and proceeding downward in sequential order; and

adding together the data elements sent by the second device and the data elements sent by the third device to form said data packet at the first device, in the specific combination as recited in the claim.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to TOAN D. NGUYEN whose telephone number is (571)272-3153. The examiner can normally be reached on M-F (7:00AM-4:30PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on 571-272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/T. D. N./
Examiner, Art Unit 2416

/William Trost/
Supervisory Patent Examiner, Art Unit 2416